

CTLSH10-100L

SURFACE MOUNT SILICON
LOW V_F
SCHOTTKY RECTIFIER

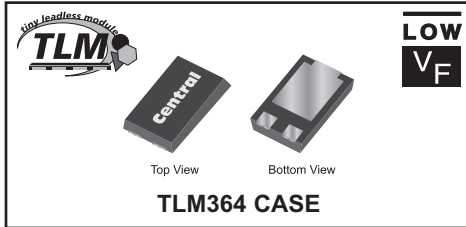


www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSH10-100L is a high performance 10 Amp silicon Schottky rectifier designed for applications requiring high current, energy efficiency and a low profile package.

MARKING CODE: CSH10100



APPLICATIONS:

- DC-DC output rectification
- Reverse polarity protection
- Power management

FEATURES:

- Low forward voltage, $V_F=645\text{mV TYP @ }10\text{A}$
- Low reverse leakage current, $I_R=15\mu\text{A TYP @ }100\text{V}$
- Low profile 1.2mm MAX package height

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Peak Repetitive Reverse Voltage
DC Blocking Voltage
RMS Reverse Voltage
Average Forward Current ($T_L=90^\circ\text{C}$)
Peak Forward Surge Current, $t_p=8.3\text{ms}$
Operating and Storage Junction Temperature
Thermal Resistance (Note 1)
Thermal Resistance (Note 1)

| SYMBOL | | UNITS |
|----------------|-------------|--------------------|
| V_{RRM} | 100 | V |
| V_R | 100 | V |
| $V_{R(RMS)}$ | 70 | V |
| I_O | 10 | A |
| I_{FSM} | 300 | A |
| T_J, T_{stg} | -55 to +150 | $^\circ\text{C}$ |
| θ_{JL} | 10 | $^\circ\text{C/W}$ |
| θ_{JA} | 23 | $^\circ\text{C/W}$ |

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|--------|--|-----|-----|-----|---------------|
| I_R | $V_R=100\text{V}$ | | 15 | 150 | μA |
| I_R | $V_R=100\text{V}, T_A=125^\circ\text{C}$ | | 15 | | mA |
| BV_R | $I_R=0.5\text{mA}$ | 100 | | | V |
| V_F | $I_F=5.0\text{A}$ | | 530 | | mV |
| V_F | $I_F=5.0\text{A}, T_A=125^\circ\text{C}$ | | 450 | | mV |
| V_F | $I_F=10\text{A}$ | | 645 | 680 | mV |
| V_F | $I_F=10\text{A}, T_A=125^\circ\text{C}$ | | 540 | | mV |
| C_J | $V_R=4.0\text{V}, f=1.0\text{MHz}$ | | 610 | | pF |

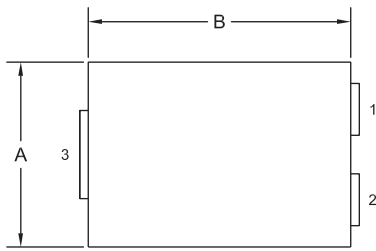
Notes: (1) FR-4 epoxy PCB with 25cm² copper pad area.

R1 (4-April 2013)

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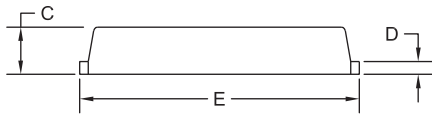
TLM364 CASE - MECHANICAL OUTLINE



TOP VIEW

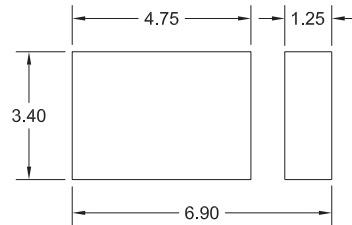
| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.167 | 0.172 | 4.25 | 4.35 |
| B | 0.238 | 0.243 | 6.05 | 6.15 |
| C | 0.039 | 0.048 | 1.00 | 1.20 |
| D | 0.009 | 0.014 | 0.25 | 0.35 |
| E | 0.250 | 0.262 | 6.35 | 6.65 |
| F | 0.128 | 0.136 | 3.25 | 3.45 |
| G | 0.076 | 0.085 | 1.95 | 2.15 |
| H | 0.044 | 0.052 | 1.10 | 1.30 |
| J | 0.083 | | 2.10 | |
| K | 0.035 | 0.044 | 0.90 | 1.10 |
| L | 0.171 | 0.183 | 4.35 | 4.65 |

TLM364 (REV:R0)

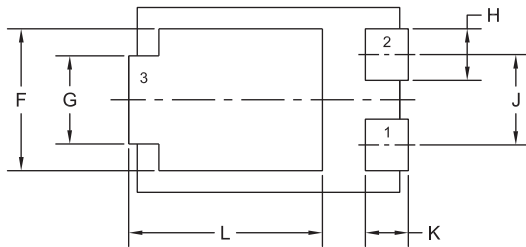


SIDE VIEW

SUGGESTED MOUNTING PADS
 (Dimensions in mm)



R0



BOTTOM VIEW R0

LEAD CODE:

- 1) Anode
- 2) Anode
- 3) Cathode

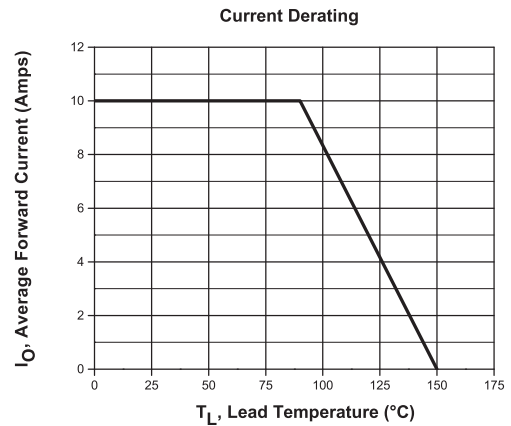
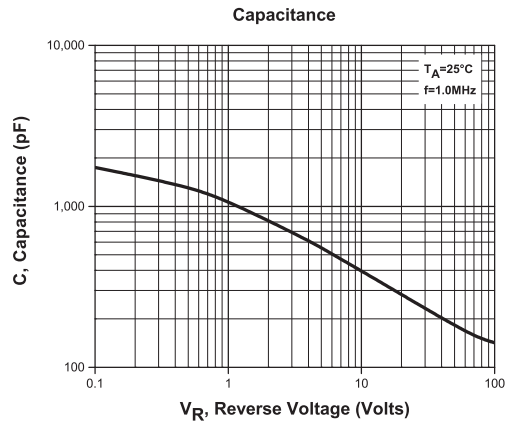
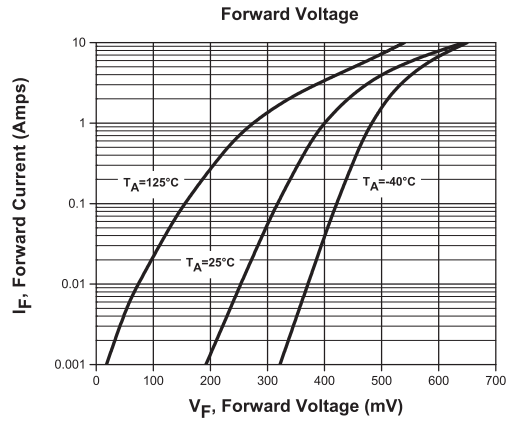
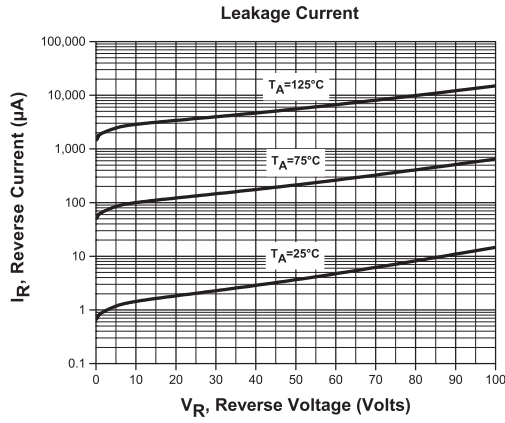
MARKING CODE: CSH10100

R1 (4-April 2013)

CTL5H10-100L
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TYPICAL ELECTRICAL CHARACTERISTICS



R1 (4-April 2013)